A Work Project, presented as part of the requirements for the Award of a Master Degree in Management from the Faculdade de Economia da Universidade Nova de Lisboa.

"Behavioural Assessment Impacts on the Performance Results"

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Abstract

This study examines the relationship between the behaviours assessed in a performance management system and the performed results achieved by the employees. It also studies the interdependency among the different behaviours assessed to the workers.

The quantitative research used statistical methods such as: correlation matrix, factorial analysis, and multiple and simple regression methodologies. A sample of N=129, was collected from the data base of a bank institution's commercial department in order to acquire the results of the performance assessment.

The results were quite enlightening as they show a strong relationship among the competences assessed. It also shows that only few of them are related with the performance results. The factorial analysis output shows an unique factor which explains more than 73% of the different competences' total variances assessed by the performance management. The performance results do not demonstrate a relation with all the assessed behaviours. Even though, some of them jointly, generate an impact on the performance results, which is demonstrated by a multiple regression analysis.

Key Words: Performance Management, Behavioural Assessment, Results Assessment, Behaviours and Results relationship.

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1. Introduction

Enhancing a good performance is the objective of all and any company. “The conventional sources of competitive advantage (...) include factors such as technology, natural resources, productivity improvements and low cost leadership. These factors have been shown to create value within an organization. Theorists have argued that these traditional types of competitive advantages are becoming increasingly scarce, hard to develop and easy to imitate, particularly in comparison to well thought out HRM systems” (Murphy et al., 2007).

Becker and Huselid (2006) suggest that “when organisations place a higher value on their employees, through the implementation of high performance management systems, their business performance improves.”

Moreover, Delery (1998) states that “the methods used by an organization to manage its human resources can have a substantial impact on many organizationally relevant outcomes.”

Regarding the previous statements, it is pertinent for the organizations to develop efforts toward an implementation of an efficient performance management. However, there is evidence that there are only a few companies which have valid systems of evaluation in place, and that represents a concerning situation. (Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha, 2008)

The performance management has been recognized as one of the most significant practices regarding the management of individuals and the human capital even though is often considered a controversial issue. (Kuvaas, 2007)

The work project overviews the methods applied to a performance assessment and develop a quantitative research to fundament the analysis of the performance

assessment by studying the impact of the behaviours assessed, on the performance results achieved by the employees. Additionally, statistical methods were used to study the interdependency among the workers' competences assessed.

2. Project Aim

The major objective of the work project is to analyze the relationship between behaviours dimension and results dimension, assessed on employees, in a performance assessment system.

The primary aim is to study the relationship between the behaviours assessed and the performance results by the employees and also to study the relationship among the different assessed behaviours.

Moreover, this study intends to investigate the relationship among the behaviours assessed and the impact that they produce individually and jointly, on the results achieved.

3. Theoretical Frame and Literature Review

3.1 Performance Management Definition

"Performance is defined as a record of outcomes produced on a specified job function or activity during a specified time period" (Bernadin and Russell, 1993).

In the organization the "employee performance very much depends not only on how management is able to structure incentives (…) but also on control mechanisms" (Nicholas Awortwi and Joana Vondee, 2007), in order to move the employee towards a desired performance.

Performance management has been pointed thought the years as one of the most important tools developed in the human resources management field. (Kuvaas, 2007)

In theory, the definition of performance management, inside an organization's human resources department, are the actions which are developed in order to engage an employee, to achieve and maintain a desired and expected performance (Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha, 2008).

Performance management can be perceived as "a strategic and integrated approach to increasing the effectiveness of organizations by improving the performance of the people who work in them and by developing the capabilities of teams and individual contributors" (Armstrong and Baron, 1998) and also as "a vehicle for the continuous improvement of business performance via co-ordinate program of people management interventions" (Walters, 1995).

Furthermore, the performance management is also considered as an ongoing process which involves identification, measurement and development of the individuals and teams, creating a performance aligned with the strategic aims of the organization (Aguinis). As some authors state, performance management "is action, based on the performance measures and reporting, which is directed to improving behaviour, motivation and processes" (Radnor and Barnes, 2007).

Theoretically, the human resources management of a company should always be aligned with the company's business strategy. In this sense, when developing a performance management, it is demanded an alignment of individual and team working behaviours as well an alignment with the organization's goals. (Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha, 2008)

Not less important, other Human Resources Management tasks, such as job design, training and career planning, staffing and compensation are closely integrated with the performance management applied by the company. In theory, "as far as the employer-

employee relationship is concerned is that it should be defined by tightly specified contract terms, clear job descriptions, provision of clear performance benchmarks, introduction of monitoring and enforcement mechanisms, as well as credible sanctions for underperformance". (Awortwi, 2003)

According to Tampoe (1994), it is proved that the performance of an employee can be increased by 25% if that employee has well defined goals. Additionally, the author refers that when tasks and defined performance indicators are set, there is evidence that it aids employees through an increase of self-management.

It is relevant to notice that in some organizations performance management has been restrained to the performance appraisal (Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha, 2008). Although, motivating staff to enhance, or even to maintain a desired level of performance, "requires more than an annual performance appraisal, this is in fact an ongoing and rewarding process" (Sara Leggat, 2009). "Effective managers need to incorporate performance review and feedback as part of their day-to-day communications with employees" (Webb, 2004).

More, performance management takes in consideration internal and external factors which can produce an impact on the organization and therefore to the performance achieved by the employee. (Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha, 2008)

3.2 Goals and Requirements of Performance Management

Bearing in mind the last statements, performance goals go beyond the aims of the performance appraisal as performance management should be developed in a way that it enables the organization to achieve a competitive advantage in its market.

In theory, the authors Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha (2008) suggest three main aims of performance management.

Concerning strategic objectives, the literature states that performance management seeks to make the connection between the worker's behaviours and the institution's strategic objectives. For instance, when an organizational strategic change is in place, it also demands a change in the strategic company's goals. Consequently, the performance management should also be revised in order to supply the desired results of its employees, taking in consideration the new strategic approach.

The authors gave the example of the Portuguese bank institutions, where the social dimension had acquired a place in the institution's mission and for that reason the employees are expected to behave in accordance to those social standards.

Secondly, concerning individual developments, the performance management aims to improve the person's performance, but also motivation and the development of competences and even helps to identify individual potential, since the process assumes the communication of feedback, contributing to the evaluation of causes and effects of the employee performance, as well as positive and negative aspects of performance. Additionally, it contributes to define training and development plans concerning the employee needs.

Relating to administrative issues of the organization, the performance management contributes to improve and facilitate the decision on compensation and placement of employees. It also has an impact on the selection process evaluation and in the effectiveness of training attended by the company employees, as Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha (2008) announce.

Additionally, the instigators found the value of performance management to the organization as an opportunity to "assess performance, audit skills and talents, for the future staffing decisions, provide information for compensation decisions, determine promotions and layoff and audit potential".

Besides, Cascio (2006) identifies five conditions to achieve an efficient performance appraisal system which are the relevance, sensibility, reliability, acceptance and practicability of the system. Nevertheless, Aguinis (*in press*) adds the trust among the interveners as a condition to achieve efficiency in the systems.

3.3 Results/Objectives Dimension

Through the years, researchers have developed different approaches to assess employees' performance. (Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha, 2008) but "there is a long history of direct research towards determining which factors managers need to consider when improving staff performance" (Sandra G. Leggat, 2009). Concerning that fact, methods had been developed to measure behaviours and results. (Torrington et al, 1991)

Firstly, regarding the methods used to evaluate results, we can identify two systems that organizations used to implement: the Management by objectives (MBO) and the *Balanced Scorecard* (BS) which was developed by Robert Kaplan and David Norton in 1992.

3.3.1. *Management by Objectives* Approach

Quoted by some authors, performance assessment is considered more effective when designed together with a goal setting approach (Lock & Latham 1990; Latham et al. 2005; Murphy & Cleveland 1995).

"Goal setting requires the manager and staff member to collaboratively develop measurable job goals and then, for the manager to provide regular feedback – not just annual appraisal feedback – on the employee's attainment of these agreed goals. " (Sandra G. Leggat, 2009).

Goals should be set in a strategic approach, as well as extended and adapted to the different departments in the organization (Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha, 2008). The *MBO* is supposed to measure each employee's contribution for the organization's sustainable and strategic path. (Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha, 2008)

"Evaluations of goal setting have shown that if an employee believes that their goals are important, they become the standard against which their performance will be measured, and if they receive regular feedback, their performance will improve." (Locke et al.1981; Bandura & Locke 2003). Locke and Latham (1990) also state that the defined goals can play a role on the behaviours assessment. Once those goals are related with efficiency, effectiveness, innovation, ethic and quality, they can represent standard behaviours. Besides, the researchers state that the defined goals should be effectively set as 'SMART'. This means that the objectives the employee has to meet should be Specific, Measurable, Attainable (even that challenging at the same time), Relevant and rewarded, and Time bounded (limited in time). It is pertinent to mention that this concept was developed and used firstly by George Doran, Arthur Miller, and James Cunningham (Management Review, November 1981)[1].

[1] Doran, George T. "There's a S.M.A.R.T. way to write management's goals and objectives." and Miller, Arthur F. & Cunningham, James A "How to avoid costly job mismatches" Management Review, Nov 1981, Volume 70 Issue 11.

Nevertheless, those objectives should be negotiated and agreed with the employee, in order to avoid conflicts. However, it may depend on the organizational culture regarding the power distance culture. (Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha, 2008)

Last but not least, Locke, Rodgers & Hunter, have been studying and proving that when employees are driven by well defined goals, this is reflected in a higher motivation to achieve superior performances and higher levels of efficiency, mainly when the top managers are pledged in that system. Nevertheless, "studies have suggested that difficult goals, if well accepted by organizational members, may lead to greater individual effort and persistence (Locke et al., 1981; Locke & Latham, 1990).

"Goals are therefore associated with enhanced performance because they mobilize effort, direct attention, and encourage persistence and strategy development." (Locke & Latham, 1990)

"Thus, clear, formal goals define a framework within specific behaviours and actions that are consistent with management's formal expectations."(Katz &Kahn, 1978)

3.4 Behavioural Dimension

"Competency management has become leading in human resource practice (Sparrow and Bognanno, 1993) and is often applied in organizations to guide selection, assessment, development, and performance appraisal (Holmes, 1995). Competency management can be describe as an integrated set of human resources activities aimed at optimizing the development and the use of employee competence in order to increase individual effectiveness, and, subsequently, to increase organizational effectiveness (Athey and Orth, 1999; Paulsson et al., 2005)"

Becker and Huselid (1999), state that institutions can benefit from competency management if it is successfully implemented. Thus, competency management can bring advantages, with clear behavioural guidelines and performance standards which can aid the communication between employer and employee (Heinsman et al., 2005). As a result, employee performance might increase which can lead to an enhancement of organizational effectiveness (Athey and Orth, 1999; Paulsson et al., 2005)

However, what can be considered as such competences? Boyatzis developed a definition which says that a competence is "a person's intrinsic characteristic that results in an effective or superior performance in the realization of an activity" (Boyatzis, 1982). For instances, an "effective performance" means an "achievement of specific results demanded for a job, through specific actions, in alignment with the politics, procedures and concrete conditions of the organizational environment". (Boyatzis, 1982)

Nevertheless, Spencer & Spencer (1993), suggests that "a competence is an intrinsic characteristic of a person that illustrates a causality relation with reference criteria of an effective and superior performance, in a determined action or situation."

In order to manage those competences, different methods have been developed to evaluate the employees' behaviours.

In literature, Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha (2008) suggest different types of evaluation such as: the narrative attempt, the attribute scale, the behaviourally anchored rating scales, the behavioural checklist, and the forced distribution.

Briefly explaining what is demonstrated in literature, by these authors, the narrative attempt represents an evaluation on paper, where the evaluator describes the employee's

strengths, weakness, capabilities and skills to improve. However, it raises issues concerning the comparison between the employees and it does not contribute to compensation and promotion decisions.

The attribute scale consists in applying a scale to qualify the performance of the employee in relation to defined behavioural characteristics.

In literature, the behaviourally anchored rating scales (BARS) is a derivation of the attribute scale method since it follows the same standard qualification, but this method describes the evaluation criteria in terms of observed behaviours. For instance, the attribute scale assesses attributes such as "assiduity", "work quality", and so on, while using the BARS method the evaluator has to appraise statements which correspond to desired criteria in the job performance.

Additionally, the BARS method contributes to the comparison between the employees as there is a common panel of behaviours for the evaluators' assessment.

In the behavioural checklist method, the evaluator measures the employee's performance against a predefined list of statements related to the job executed.

Using the forced distribution method the evaluator is required to distribute the evaluation of employees following a determined distribution. For illustration, the administration of an institution can establish that only 15% of the workers of a determined department can be evaluated to "Excellent", 35% to "Good", 35% to "Sufficient" and 15% to "To improve". In 1990, Jack Welch in General Electric implemented this approach with a well-known distribution of 20-70-10 and it was assumed to be a *best practice* worldwide. (Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha, 2008)

It is identified by researcher that this method forces the evaluator to differentiate the employees and even Lawler (2003) identifies that it contributes to fight against the trend of evaluators to award all workers with high performances, "regardless of the relative merit" of the employee. (Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha , 2008)

Last but not least, McClelland reveals the importance to assess the competences of the workers or the behaviours observed by them. In fact, his investigations have shown repeatedly that people, with higher performances, are those who evidence a group of performance characteristics that differentiates them from others.

3.5 Behaviours and Results Relationship

"Although researchers have shown a growing interest in the effects of human resource practices on employee attitude and behaviour" (Edgar and Geare, 2005; Guest, 1999), I am not aware of a study that has examined the impact of the behaviours assessed by the institutions on the results achieved by the employees.

However, "during the ensuring decades many studies examined the relationship between goals and performance in organizations, with most of them focusing on formal job duties and responsibilities" (i.e., Audia, Brown, Kristof-Brown, &Locke, 1996; Jessup & Stahelski, 1999; Locke & Letham, 1990; Locke, Shaw, Saaru, &Latham, 1981; Yuki & Latham, 1978).

"MBO and goal setting theory became a prominent field on study in organizational behaviour because many studies empirically confirmed that goals are key in setting up a positive organizational climate, enhancing team spirit, providing social support, improving job attachment, and enhancing performance (Erez, 1986; Latham & Yukl, 1975; Locke & Latham, 1990)"

It is also identified that "if goals difficulty and goal clarity define a desired performance that is expected from organizational members, they may also indirectly define the psychological contract and the extra-value behaviour of these individuals that is beyond this minimal or formal expected level of performance." (Eran Vigoda-Gadot and Larisa Angert, 2007)

Thus, it is perceived that a higher accomplishment of behaviours required by the job and the organization, the higher will be the achievement of the purposed objectives to the employee. This means that it is assumed to exist a positive relationship between the employees' behaviours and their achieved results. (Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha , 2008)

4. Project Design and Hypothesis

As it was mentioned in the project aim, this study intends to revise the relationships between the competences/behaviours assessed on employees and the performance results achieved. In other words, the project design considers the different behaviours which are evaluated in a performance assessment and analyzes how those behaviours influence the achieved results/objectives.

The research was developed in a specific department of a bank institution, the commercial department, considering the current performance assessment system implemented and applied to their employees.

The purpose of the study is also to analyze if the assessed competences are independent among them and if there is any evidence of a stronger influence of one of the behaviours on the employee's performance.

It is possible to see in Appendix I a representation of the work project design.

Based on the previous literature review, the project hypotheses are the following:

H1. The different assessed competences are not independent among them.

H2. There is a positive relation between the assessed behavioural competences and the evaluation of the objectives.

H2.a. Between the Client Service and the level of objectives achieved.

H2.b. Between the Involvement and commitment and the level of objectives achieved.

H2.c. Between the Orientation for results and the level of objectives achieved.

H2.d. Between the Team work and the level of objectives achieved.

H2.e. Between the Initiative and the level of objectives achieved.

H2.f. Between the Capability for adapt to change and the level of objectives achieved.

H3. The different assessed behavioural competences do not have the same influence on results.

H4. There is evidence that only some of the competences explain the objectives achieved by the employee.

5. Methodology

5.1 General Methodology

The methodology used in the work project is a transverse and one-shot study, which means that the analysis of this study is not done throughout different periods on time.

The first procedure used to develop the work project is a correlation matrix for the available data. It will be calculated to the several competences and also with the results/objectives variable. Note that many methods of multivariate statistical analysis rely on a correlation matrix as the initial data.

Furthermore, it is computed a factorial analysis (introduced by Thurstone, 1931) to the different behaviours assessed in order to verify if the different competences assessed are independent among them.

The factorial analysis is used on this study because it makes it possible to know how many different factors are needed to explain the pattern of relationship among the assessed behaviours. This procedure makes possible to identify the interdependencies among the behavioural variables.

A multiple regression method is used to study the data, using the results/objectives component as a dependent variable and the variety of competences assessed, as the independent variables. Pearson introduced the multiple regression method in 1908, with the general purpose to learn and study the relationship between several independent variables and a dependent variable.

A Multiple regression can determine that the competences variables explain a proportion of the variance in the result/objective variable, at a significant statistical level, measured through a significance test of R^2. With this procedure, the comparative predictive relevance of the independent variable can be established using a beta weights analyzes.

As the fourth computation, the work project presents a simple linear regression. It refers to a model of relationship between one explanatory variable and one response variable. The principal of this method is similar to the earlier one, the multiple regression, but considering only one independent variable. In this case the average evaluation of the employees in the behaviour dimension is the independent variable, and the dependent variable is the performed results of the bank institution's front offices. In other words, the goal is to forecast, using a simple regression model, a predictive model to the

observed data set of results achieved by the front offices and the average evaluation of the employees' competences.

Computing the different competencies assessed on employees and study the impact on the results achieved by teams brings some issues to the project. Still, concerning managerial issues and having in mind that we are dealing with data from a bank institution, it is a good judgment since the work developed in the commercial area, demands team work. Nevertheless, concerning statistical issues, it is having in consideration that this fact restricts the data and brings limitations in the relation among the variables. And consequently, the variables variances will be lower.

However, bearing in mind the goal of the work project, in my opinion, these methods represent an adequate approach as the general methodology used to this case.

5.2 Variables Descriptions

5.2.1. Independent Variables

The independent variables on this study are the competences assessed on employees in the performance management, to the commercial area, in a specific banking institution.

The behaviour dimensions are evaluated through a group of competences which the institution calls strategic competences. These competences are applicable to all departments of the bank organization, although in this study they will refer only to the commercial department, as mentioned before.

It seems pertinent to determine the strategic competences and what they stand for. The institution defines the following six strategic competences: client service, involvement and commitment, orientation for results, team work, initiative and capability for adapt to change.

A brief explanation on which of the competences: client service is the ability to satisfy the client and to offer a service which meets or exceeds its expectations; involvement and commitment is the willingness to share the institutions values and the professional commitment when performing the job; orientation for results is the capability to develop the employee's activity and responsibilities in order to achieve the goals set; team work is to promote a cooperation, communication and a trustful spirit among the team members, which should contribute to achieving the common goals; initiative competence is the employee's capacity to anticipate situations and solve problems, and even face them as opportunities; capability for adapt to change, is the ability to positively integrate and accept changes in the job, keeping a flexible attitude, to technological changes or changes related to tasks procedures.

5.2.2. Dependent Variable

The dependent variable of this study is the results/objectives achieved by the employee. That result/objective variable is represented by the results achieved by the team in the front office, which the employee is part of.

The evaluation of the results/objectives is given to the commercial teams, not to the individuals. On the one hand, this represents a limitation, in statistic terms, among the variables of the study, since it decreases the variable variance, as was mention before. On the other hand, and in strategic terms, the fact that the results are assessed collectively is correct, given the fact that we are analysing the commercial department of a bank institution, where jobs are performed as teams work.

The variable, for the bank institution, represents the global achievement level determined based on an objectives matrix, with the results/objectives approved and expected by the employees to accomplish.

In fact, this global achievement level is computed through the arithmetic sum of the percentage of execution of each quantitative objective, weighted by a defined relative weight.

The minimum and maximum percentage of accomplishment of results/objectives is 50% and 200%, respectively. If the percentage of accomplishment is lower than 50%, the teams will have their percentage of achievement adjusted to zero. If the percentage of achievement is greater than 200%, it will be adjusted to 200%.

5.3 Institution Description and its Performance Assessment

The data for the work project is collected in a bank institution. It seems relevant to briefly say that this bank institution is integrated in an international banking group which represents one of the biggest European banking groups and it is present in Portugal for over 9 years. However, due to confidential issues the name of this institution cannot be revealed.

Regarding the implemented performance assessment in the institution, it is relevant to say that applies a similar approach to other bank institutions operating in Portugal, such BES or Caixa Geral de Depósitos.

Furthermore, their performance assessment aims to reward and recognize the results of the global institution as well as the individual departments and business areas. It also assesses and recognizes the revealed behavioural competences and employee results through the performance demonstrated by the teams. In addition, it promotes the meritocracy and aspires to create standards to enhance motivation and development of its employees.

The assessment of the results/objectives dimension is done through a MBO approach while the behavioural dimension is assesses through the BARS method, a narrative attempt and a forced distribution approach.

Regarding the institution's principles, the formal assessment of employees, is done by the direct supervisor. Additionally, all employees who have management/coordination team positions must perform a formal evaluation.

In this bank institution, the behavioural dimension evaluation intends to have a suitable adjustment between the tasks and competences required by the employee and to achieve a continuous improvement of the employees' performances, in terms of procedures as well as in terms of results.

The institution wishes to achieve this goal by a clear definition of the necessary competences for the performance design (taking in consideration the different jobs and responsibilities' levels) as it is recommend and proved in theory. And also by communicate the necessary competences, to the employee, in order to perform a specific job.

For the continuous improvement of performances, the institution aims to evaluate regularly the competences proved in the job, and give regular feedback about the way and the achievement level of the results and even through coaching, job rotation and contents adjustment regarding the tasks to perform and formal or on-the-job training. Nevertheless, the organization aims to promote a career ladder based on the proven potential and merit. Last but not least, it aims to reward in accordance to the performance achieved by the team.

Regarding the formal process of the performance evaluation, it begins every year, when the HRM Department provides guidelines to the appraisers and communicates the

forced distribution curve (Appendix II). For instance, see in Appendix III the current reference to the distribution curve.

The department also informs the employees who will be performing the evaluation. Once the formal period of evaluation begins, the appraiser fills in the application form. When the formal period ends, the application form of the employees' performance management must be complete, and delivered to the HRM where the forced distribution curve is computed. Later, the evaluation is communicated to the employee by the appraiser and the evaluation interview takes place. To conclude the process, the worker has the opportunity to fill in the application form with his/her own judgment (if he/she agrees or not) considering the given evaluation.

5.4 Sample description

This study is constructed based on a data collection of employees' evaluation, gathered in a bank institution's commercial area. Regarding that, the sample of the work project is the institution employees, with N=129. Considering this number, the sample represents around 10% of the company's employees and 14% of the commercial department. The population of the workers in the bank are around 1300 and the workers in the commercial area around 934.

Bearing that in mind, it is relevant to say that all employees are evaluated concerning the objectives dimension. In other words, all employees are expected to meet goals and evaluated according to their achievements.

The employees subject to behavioural evaluation differ. Temporary workers are excluded from competences evaluation. An employee can only be assessed after a hiring period of six months. If the evaluation reports to a period smaller than six months, the evaluation is not effectively considered, but the evaluation in those circumstances is

taken in account for indicative effects of the performance evolution and the employee integration in his/her job and in the institution.

5.5 Data Analysis and Interpretation

5.5.1 Correlation Analysis

As mentioned before, the first statistical procedure used in this study, is a correlation analysis among the behavioural variables and the results, in order to analyze the relationship among competences and results.

Table I – Correlation Matrix among the competences and the results/objectives variables:

Correlations

		ClientServ	Commit Envolv	ResultOrie	TeamWork	Initiative	ChangeCap	ResultObjecti
ClientServ	Pearson Correlation	1,000	,665**	,734**	,610**	,756**	,717**	,149
	Sig. (2-tailed)		,000	,000	,000	,000	,000	,092
	N	129	129	129	129	129	129	129
CommitEnvolv	Pearson Correlation	,665**	1,000	,768**	,660**	,670**	,726**	,228**
	Sig. (2-tailed)	,000		,000	,000	,000	,000	,009
	N	129	129	129	129	129	129	129
ResultOrie	Pearson Correlation	,734**	,768**	1,000	,707**	,694**	,661**	,162
	Sig. (2-tailed)	,000	,000		,000	,000	,000	,067
	N	129	129	129	129	129	129	129
TeamWork	Pearson Correlation	,610**	,660**	,707**	1,000	,520**	,642**	,176*
	Sig. (2-tailed)	,000	,000	,000		,000	,000	,046
	N	129	129	129	129	129	129	129
Initiative	Pearson Correlation	,756**	,670**	,694**	,520**	1,000	,677**	,139
	Sig. (2-tailed)	,000	,000	,000	,000		,000	,115
	N	129	129	129	129	129	129	129
ChangeCap	Pearson Correlation	,717**	,726**	,661**	,642**	,677**	1,000	,259**
	Sig. (2-tailed)	,000	,000	,000	,000	,000		,003
	N	129	129	129	129	129	129	129
ResultObjecti	Pearson Correlation	,149	,228**	,162	,176*	,139	,259**	1,000
	Sig. (2-tailed)	,092	,009	,067	,046	,115	,003	
	N	129	129	129	129	129	129	129

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Analysing the previous computation it is possible to verify that the employees' behaviours assessed are significantly correlated among them, which implies that they are not independent and therefore the H1 of the study is confirmed.

It is also analysed the relationship between the behaviour variables and the results. In those cases, only the capacity for adapt to change, team work and the commitment and involvement show a positive correlation with the results. The other behaviour variables are not correlated with the results/objectives variable, meaning that the assessed

competences which are not statistically correlated with the results do not produce any impact on the employees' performance results. Thus, it is possible to state that H2.a, H2 c and H2.e are infirmed hypothesis and H2.b, H2.d and H2. f are hypothesis which can be confirmed.

5.5.2 Factorial Analysis

The factorial analysis calculation of the assessed behaviours produced the following output.

Table II- KMO and Bartlett's Test:

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,889
Bartlett's Test of Sphericity	Approx. Chi-Square	572,259
	df	15
	Sig.	,000

This test examines if the factorial analysis has a statistical meaning by revealing a KMO and Bartlett's Test higher than 0,6. Since the test for this study expose a value of 0,889, it seems meaningful to compute that analysis. In fact, it was already expected given the previous computation where we verified a high level of correlation among the variables. The factorial analysis result is a unique factor as we can verify in the following table.

Table III- Total Variance explained:

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4,407	73,450	73,450	4,407	73,450	73,450
2	,520	8,666	82,116			
3	,343	5,723	87,839			
4	,323	5,384	93,223			
5	,229	3,819	97,041			
6	,178	2,959	100,000			

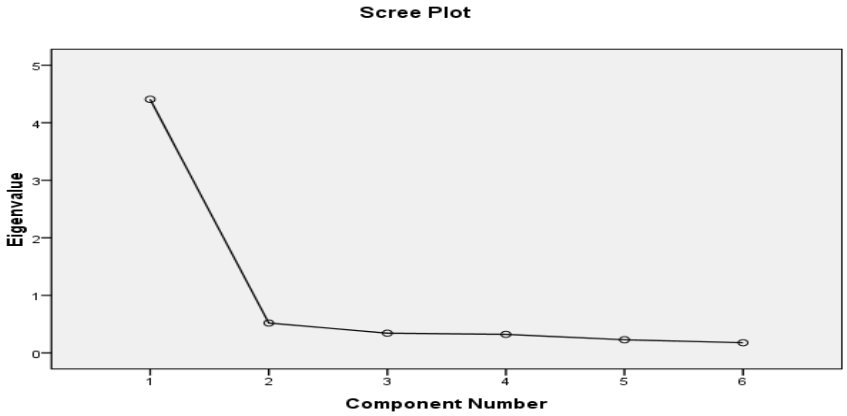
Extraction Method: Principal Component Analysis.

The relevant information to extract from this computation, and for the time being, is that the first eigenvalue is equal to 4.407 and represents 73.450% of the sum of the six eigenvalues. In other words, the first principal component embraces 73.45% of the components' total variance.

This means that, even if there are six different competences being assessed on employees, there is only one explicative factor of the employees' behaviours. By verifying in the correlation matrix, a strong correlation among the behavioural variables, this output is fully understandable.

An additional output is the Scree Plot that helps to simply validate the evidence of the only one factor extraction. Due to the fact there is a clear breaking point in the graphic illustration.

Table IV- Scree Plot:



Thus, the only existent factor result from the Total variance explained table and in accordance with the Scree Plot analysis, and can be verified that the appraiser evaluates in relation to the global perception that he/she has relatively to the employees, not paying attention to the differences between the behaviours being assessed.

Note that the full computation of the Factorial analysis is presented in Appendix IV.

5.5.3. Multiple Regression Analysis I

In order to test the hypothesis H2, H3 and H4 it was applied a multiple regression analysis, and the results are now presented:

Table V – Multiple Regression Model:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,280[a]	,078	,033	34,80343

a. Predictors: (Constant), ChangeCap, TeamWork, Initiative, CommitEnvolv, ClientServ, ResultOrie

Table VI – ANOVA Analysis:

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12565,626	6	2094,271	1,729	,120[a]
	Residual	147776,039	122	1211,279		
	Total	160341,666	128			

a. Predictors: (Constant), ChangeCap, TeamWork, Initiative, CommitEnvolv, ClientServ, ResultOrie

b. Dependent Variable: ResultObjecti

Table VII – Multiple regression Coefficients:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	54,572	11,986		4,553	,000
	ClientServ	-,122	,294	-,065	-,413	,680
	CommitEnvolv	,254	,267	,149	,954	,342
	ResultOrie	-,064	,265	-,040	-,240	,811
	TeamWork	,023	,232	,013	,100	,920
	Initiative	-,124	,272	-,067	-,458	,648
	ChangeCap	,447	,254	,261	1,764	,080

a. Dependent Variable: ResultObjecti

This output reveals that there is no statistical significance in the study of the impact of the behaviour variables in the results variable. For that reason it is possible to conclude that there is no statistical evidence that in this system, the assessed competences generate an impact on the results achieved by the employees. Thus, the H2 is rejected. Additionally, H3 is infirmed too given the assessed behavioural competences do not show any influence on performance results.

5.5.4 Multiple Regression Analysis II

Concerning the fact that no variable is statistically significant in that study, it was computed a multiple regression only with the variables that showed a correlation (in the correlation matrix) with the results/objectives variable.

It is possible to observe the following computation of that multiple regression analysis:

Table VIII – Multiple Regression Model:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,266[a]	,071	,048	34,52756

a. Predictors: (Constant), ChangeCap, TeamWork, CommitEnvolv

Table IX – ANOVA Analysis:

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11322,598	3	3774,199	3,166	,027[a]
	Residual	149019,067	125	1192,153		
	Total	160341,666	128			

a. Predictors: (Constant), ChangeCap, TeamWork, CommitEnvolv

b. Dependent Variable: ResultObjecti

Table X – Multiple regression Coefficients:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	52,590	11,413		4,608	,000
	CommitEnvolv	,154	,231	,090	,667	,506
	TeamWork	-,022	,211	-,013	-,106	,916
	ChangeCap	,347	,227	,202	1,529	,129

a. Dependent Variable: ResultObjecti

Therefore, it is possible to interpret, that there are three behavioural variables (Commitment and Involvement, Team Work and Capability for adapt to change) that together show a R = 0,27, significant at a $\rho < 0,05$. However, considering each one of the three variables separately, none shows a significant loading explained the results variance. Regarding that, the H4 of this study is confirmed.

5.5.5 Simple Regression Analysis

Nevertheless, it is interesting to analyze the computation of a simple regression between the employees' average competences and the results/objectives variable.

Notice that, this variable (employees' average competences) was computed by an arithmetic average of all the competences' evaluation of the employees.

Table XI – Simple Regression Model:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,218[a]	,047	,040	34,68021

a. Predictors: (Constant), CompAverag

Table XII – ANOVA Analysis:

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7596,596	1	7596,596	6,316	,013[a]
	Residual	152745,070	127	1202,717		
	Total	160341,666	128			

a. Predictors: (Constant), CompAverag

b. Dependent Variable: ResultsObjecti

Table XIII – Multiple regression Coefficients:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	55,028	11,167		4,928	,000
	CompAverag	,444	,177	,218	2,513	,013

a. Dependent Variable: ResultsObjecti

It is quite interesting to observe that this relationship is statistical significant. Thus, it is possible to detect the following relationship, by the simple regression model: $\text{Re}\,sults = 55{,}03 + 0{,}218 compAverag + e$, which means that by increasing assessed competences average by one point, the employee is able to increase its performance

results by 0,218. The goodness of fit of this model is shown by an R= 0,218, with a statistical significant at ρ >0,013.

It is relevant to mention that all computations were done in the SPSS v.16 software application.

6. Discussion, Conclusions and Limitations

The primary purpose of the study is to investigate the impact of employees' behaviours on the results or objectives dimension in a performance management system.

Bearing in mind, the use of performance management intends to redirect the efforts of companies' employees towards an achievement and improvement of effectiveness.[2] And as it was mentioned before, it constitutes a managerial tool which positively contributes to the companies' competitiveness.

However, as any policy adopted by an institution it holds costs. And regarding the companies' overall goals, those costs should be effectively allocated.

For those reasons, in the performance assessment there should only be included "relevant criteria for evaluation which can be measured and have an impact on the job performance" (Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha, 2008) to be aligned with the general efficient company's strategy.

In the analyzed model, the assessed behaviours do not generate impact on the results, as we can verify from the multiple regression output or even by the correlation matrix computation. Only some of the competences show a positive and statistical significant relationship with the results. This leads to not verify H2.a, H2.c and H2.e of this study. Still, the hypothesis H2.b, H2.d and H2.f are verified by the results on the correlation

[2] http://www.managementhelp.org/emp_perf/emp_perf.htm

matrix as well as the H4 due to the fact that there is evidence that only some of competences causes an impact on the objectives achieved by the employee.

That leads to the discussion of the most relevant criteria to incorporate in the performance management. Nevertheless, what are considered to be the appropriate behaviours to assess, how many competences should be evaluated and even which behaviours produce a significant impact on companies' results are all controversial but essential issues to develop an efficient performance management system (Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha, 2008).

Cascio (2006, p.332) states that a performance assessment will always be a human and imprecise procedure. Those intrinsic aspects of the performance management and the simplest fact that it appears extremely complex and even unreliable to measure performance, based that it could only be a controversial issue. It is important to be aware that at times the inefficiency of the performance management might be connected with "inaccuracies and bias caused by the evaluators". (Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha, 2008)

That could fundament the fact that the study's H1 is not verified, since the different competences assessed demonstrated a high correlation among them and the factorial analysis on the assessed behaviours showed a single factor. It could be assigned to a bias of the evaluators who appraise merely based on the employees' overall behaviours observation.

Furthermore, the multiple regression analysis, calculated in this study, produced no statistical evidence to confirm that the behavioural competences generate an impact on the performance results, so the H3 hypothesis cannot be verified.

Nevertheless, the study demonstrated a limitation concerning the fact that the statistical procedures are based on data of individual behaviours' assessment, but related to team performance results.

The team results/objectives variable applied to an individual evaluation for each member of the team and concerning statistical issues, that projection limits the relationship between the variables. Despite the fact that, the computation of the simple regression with the average competences as the independent variable and the results/objectives as the dependent variable, tries to reduce the effect of this limitation.

Another statistical limitation is related to the limited number of observations, given this data was gathered only from a single bank institution. So to do a proper interpretation of the statistical outputs, it should be taken in account that the data of this study only refers to the employees of one institution. However, Grund and Sliwka (2009) affirmed that "relevant empirical studies usually examine a limited number of observations and analyze an existing system in one or only a few firms."

An additional issue to these limitations is associated to the fact that the current year in analysis is the first year of this performance assessment system. Meaning that, the year of the system implementation, can bring some adaptation issues from the employees and the appraisers.

It can be considered questionable the use of the Forced Distribution methods. As Lawler (2003) identifies, this method can lead to a sensation of injustice and dissatisfaction which can guide to the discredit of the method and its inefficiencies. This occurs when some employees get a weak evaluation, in relation to his/her performance imposed by the distribution curve. (Pina e Cunha, Marques, Gomes, Cabral-Cardoso e Campos e Cunha, 2008)

Despite the limitations, this study intends to fill in the gap in the study of behaviours assessed in a performance management and their impact on the performed result by the employees. Future studies could replicate this investigation with a wider range of data to establish generalization, to analyse several of these results and deepen other relationship among the presented variables.

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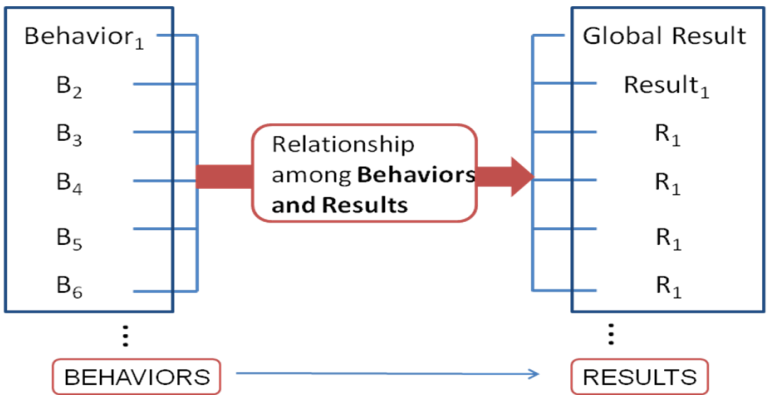
9. Appendix

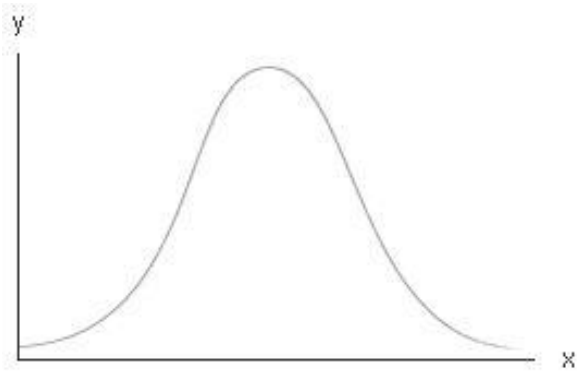
9.1. Appendix I

Work Project Design:



9.2. Appendix II

Forced distribution curve illustration:



Source: http://www.administracaoegestao.com

9.3. Appendix III

Reference percentage of the current Forced Distribution Curve at the bank institution:

% of the Forced Distribution Curve	Evaluation
10%	"To improve"
15%	"Medium"
50%	"Good"
15%	"Very Good"
10%	"Excellent"

9.4. Appendix IV

Factorial Analysis Output:

Correlation Matrix[a]

		ClientServ	Commit Envolv	ResultOrie	TeamWork	Initiative	ChangeCap
Correlation	ClientServ	1,000	,665	,734	,610	,756	,717
	CommitEnvolv	,665	1,000	,768	,660	,670	,726
	ResultOrie	,734	,768	1,000	,707	,694	,661
	TeamWork	,610	,660	,707	1,000	,520	,642
	Initiative	,756	,670	,694	,520	1,000	,677
	ChangeCap	,717	,726	,661	,642	,677	1,000

a. Determinant = ,010

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,889
Bartlett's Test of Sphericity	Approx. Chi-Square	572,259
	df	15
	Sig.	,000

Communalities

	Initial	Extraction
ClientServ	1,000	,763
CommitEnvolv	1,000	,765
ResultOrie	1,000	,791
TeamWork	1,000	,641
Initiative	1,000	,706
ChangeCap	1,000	,741

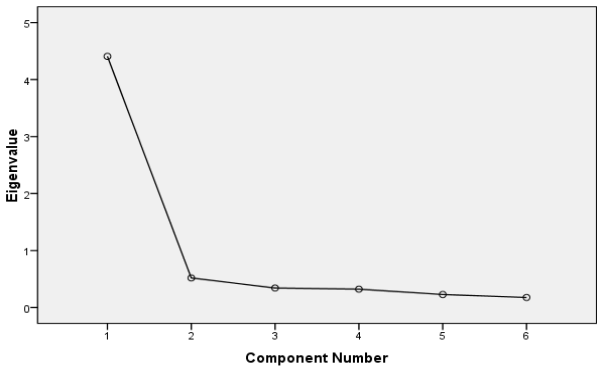
ent Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4,407	73,450	73,450	4,407	73,450	73,450
2	,520	8,666	82,116			
3	,343	5,723	87,839			
4	,323	5,384	93,223			
5	,229	3,819	97,041			
6	,178	2,959	100,000			

Extraction Method: Principal Component Analysis.

Scree Plot



Component Matrix[a]

	Component
	1
ClientServ	,873
CommitEnvolv	,875
ResultOrie	,890
TeamWork	,801
Initiative	,840
ChangeCap	,861

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Component Score Coefficient Matrix

	Component
	1
ClientServ	,198
CommitEnvolv	,198
ResultOrie	,202
TeamWork	,182
Initiative	,191
ChangeCap	,195

Extraction Method: Principal Component Analysis.

Component Score Covariance Matrix

Co...	1
1	1,000

Extraction Method: Principal Component Analysis.